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## (54) FILTER MEDIUM FOR AIR CLEANER AND ITS PRODUCTION

## (57)Abstract:

**PROBLEM TO BE SOLVED:** To improve the initial trapping efficiency for dust by laminating two or more layers of hot-melt hydrophobic fibers and nonhot-melt hydrophobic fibers in such a manner that the average denier of the fiber layer in the exit side for an air flow is smaller than that of the fiber layer in the entrance side for an air flow, and specifying the proportion of the amt. of an oil agent deposited to the fiber weight.

**SOLUTION:** This filter medium used for an air cleaner of an automobile or the like is obtd. by laminating two or more fiber layers comprising hot-melt hydrophobic fibers and nonhot-melt hydrophobic fibers and bonding layers with the hot-melt hydrophobic fibers. The filter is produced in such a manner that the average denier of the fiber layer in the exit side of an air flow is smaller than that of the fiber layer in the entrance side for an air flow and that the proportion of the deposited amt. of an oil agent is  $\leq 0.2\text{wt.}\%$  of the fiber weight. By decreasing the fiber diameter in the exit side of an air flow and binding fibers with the hot-melt hydrophobic fiber to form a dense layer, clogging with dust, especially with carbon particles can be prevented. By decreasing the oil agent to  $< 0.2\text{wt.}\%$  of the fiber weight, dust can be trapped with a high trapping efficiency.

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